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Le but de cette étude était d'évaluer les habiletés de communication en français et le rendement scolaire des élèves du programme intensif de français langue seconde. Trois groupes d'élèves de 4e année ont participé à la recherche : un groupe inscrit au programme intensif et deux groupes du programme régulier de français langue seconde. Les résultats amènent à conclure que le programme intensif favorise visiblement le développement des habiletés de communication en français sans nuire au rendement scolaire en général.

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EVALUATION OF THE GRADE 4
EXTENDED FRENCH CORE PROGRAM

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Résumé

Le but de cette étude était d'évaluer les habilités langagières en français et en anglais et le rendement académique des élèves du nouveau programme intensif de français langue seconde. Trois groupes d'élèves de 4^e année ont participé à ce projet: un groupe d'élèves du programme intensif (groupe EC) et deux groupes d'élèves du programme régulier de français langue seconde. Les élèves d'un des deux groupes fréquentaient différentes écoles situées dans des quartiers plutôt anglophones (groupe RF). Les élèves de l'autre groupe venaient d'une école située dans un quartier francophone (groupe RFF).

Les habilités langagières en français ont été évaluées à l'aide des tests suivants: un test de compréhension auditive, un test de lecture et un test d'expression orale. Les habilités langagières en langue maternelle et le rendement en mathématiques ont été évalués à l'aide d'une série de tests en anglais et en mathématiques (Metropolitan Achievement Tests).

Les résultats indiquent que: (1) le groupe EC a obtenu des résultats nettement supérieurs à ceux du groupe RF aux tests de français; (2) il n'y a pas de différences significatives entre le groupe EC et le groupe RFF à l'exception des deux cas suivants: (a) le groupe EC a obtenu des résultats nettement supérieurs à ceux du groupe RFF au test de lecture en français; (b) le groupe RFF a fait moins d'erreurs grammaticales que le groupe EC; (3) il n'y a pas de différences significatives entre les groupes aux tests d'anglais; (4) le groupe EC a obtenu des résultats nettement supérieurs à ceux des groupes RF et RFF au test de

mathématiques.

Les résultats de cette étude nous mènent à conclure que le programme intensif de français langue seconde favorise visiblement le développement des habilités langagières en français sans nuire ni au développement de la langue maternelle ni au rendement académique. L'absence de différences significatives entre les résultats des groupes EC et RFF aux tests de compréhension auditive et d'expression orale en français est expliquée par les caractéristiques linguistiques du quartier où est située l'école du groupe RFF et l'effet que pourrait avoir le matériel didactique utilisé.

Summary

The purpose of this study was to assess French second language proficiency, mother tongue skills and academic achievement of grade 4 students attending an extended core program. Three groups of students participated in the study: a group of students from the extended core program (EC group) and two groups of students from the regular French second language program. One of these groups came from schools in predominantly English-speaking neighbourhoods (RF group) and one came from a school in a mainly French-speaking area (RFF group).

Two batteries of tests were administered (1) a battery of French tests (listening comprehension, reading comprehension and oral production) and (2) a battery of English and mathematics tests (Metropolitan Achievement Tests).

The results indicate that (1) the EC group performed significantly better than the RF group on all the French tests; (2) there were no significant differences between the EC group and the RFF group except in two cases: (a) the EC group scored significantly higher than the RFF group on the French reading comprehension test and (b) the RFF group produced significantly fewer grammatical errors than the EC group; (3) there were no significant differences among the groups on the English tests; (4) on the mathematics test, the EC group scored significantly higher than the other two groups.

The findings of this study suggest that the extended core program leads to increased proficiency in French without detrimental effects on the development of mother tongue skills and academic achievement.

The absence of significant differences between the EC and RFF groups on the aural/oral French tests is discussed in terms of the linguistic environment outside the school and the possible effect of the teaching materials used by the RFF students.

Table of Content

	Pages
Introduction	1
Evaluation of Program	2
Method	2
The Sample	2
The Test Battery	4
Procedure for administering the tests	7
Results	8
Summary and Conclusions	13
References	17
Tables	18

The purpose of this report is to provide an evaluation of the new intensive French second language program which has been implemented, on an experimental basis, in one of the English language schools of the Protestant School Board of Greater Montreal. The program is the first attempt made by the P.S.B.G.M. to provide an extended core program at the elementary level.

The characteristics of the program are as follows: the program is introduced in grade 4 and at that grade level the instructional time devoted to French is tripled by comparison to the regular French second language program. During the following years, i.e., in grades 5 and 6, the program is less intensive, but still more extensive than the regular French second language program. The projected time distribution over the three year period is shown below:

Grade 4	90 minutes
Grade 5	60 minutes
Grade 6	60 minutes

The primary objective of the program is the development of communicative skills. To achieve this goal both a more formal second language teaching approach and an informal "immersion" approach are used. The basic text is Bonjour Canada. However, only one third of the daily instructional time is devoted to this text. The other two thirds provide more informal exposure to the language. Here learning activities center around themes that are of interest to children of this age. Additional reading materials are provided by using

French mother tongue texts. This part of the program stresses the development of global comprehension in reading. Writing skills, especially creative writing, are introduced more extensively during the second half of the year, after the students have developed some proficiency in oral skills and in reading comprehension.

Evaluation of Program

This study represents the first formal evaluation of student performance in the extended core program. French listening and reading comprehension as well as oral production were assessed. French writing skills were not tested because it was felt that students had not yet had sufficient opportunities to develop these skills at the time the tests were administered.

Since the extended core program affects the amount of instructional time in other subjects, it was decided to assess also student performance in the mother tongue and achievement in mathematics.

Method

The Sample

Three different groups of grade 4 students participated in this study: (1) a group of students from the regular French program (hereafter RF group), (2) a group of students from the extended core program (hereafter EC group) and (3) a group of students from a school

situated in a predominantly French-speaking area of Montreal (hereafter RFF group).

The students in the RF group came from four schools situated in different locations. The students in one of the schools came from middle to upper middle class homes. The students in the other schools came from slightly lower socio-economic level backgrounds. All four schools were located in mainly English-speaking areas. One grade 4 class from each school participated in the study.

The students in the EC group were studying in three different classes (hereafter EC1, EC2 and EC3) in the same school. One of these classes (EC3) was part of a split level grade 3/4 class and was therefore much smaller than the other two. The majority of the students in the EC group came from middle socio-economic class homes. However, about one-third of the students had studied in a different school the year before. These students came from a slightly lower socio-economic background.

As noted above, the RFF group consisted of a grade 4 class from a school situated in a predominantly French-speaking area of Montreal. Moreover, although the program is a regular thirty-minute program, the teaching materials used in this school differ from those in the other schools. In fact, the basic textbook is the same as the one used in the extended core program, namely, Bonjour Canada. The students in this group came from mainly middle class income homes.

The Test Battery

Two batteries of tests were administered: (1) a battery of French language tests and (2) a battery of English language and mathematics tests. In addition, all the students were administered a large Thorndike test (verbal battery, level A) to control for possible differences in mental capacities between the groups.

(1) The French Test Battery

The following French language tests were administered (i) a listening comprehension test, (ii) a reading comprehension test and (iii) an oral production test.

(i) Listening Comprehension Test

The French listening comprehension test was a test prepared by the ministère de l'Éducation for grade 6 students in the regular French second language program. The test consists of 56 multiple-choice items recorded on tape. The items are grouped into four sections. In sections 1 and 2, the students hear a stimulus word or sentence and the four alternative responses are presented in pictures (section 1) or in written sentences (section 2). In section 3, the students see a written sentence and the four alternative responses are presented orally. In section 4, the students hear a short dialogue and the responses are again presented in writing. Instructions are given in English both orally and in written form.

(ii) Reading Comprehension Test

This test is composed of two parts. The first part was taken from the French reading test prepared by the ministère de l'Éducation for grade 6 students in the regular French second language program. Only sections 1 and 2 of this test were used. The two sections contain a total of 17 items. Each item consists of a short sentence followed by four alternative responses. In section 1, the response items consist of pictures. In section 2, they consist of words or phrases which complete the stimulus sentence. The second part of the test was adapted from a reading test developed by the Ontario Institute for Studies in Education for use in immersion programs (Levels 2 and 3). This part of the test contains seven short stories. Each story is followed by several questions with multiple-choice answers (15 questions in all). Instructions for each section were given both orally and in written form.

(iii) Oral Production Test

This test was developed by the Research Department of the P.S.B.G.H. for the present evaluation. It consists of seven single pictures and two sets of pictures. The single pictures depict a central action. Each of the two sets of pictures depicts a sequence of actions which form a story. For pictures I - VII, the students were asked several questions (18 questions in all). The questions were worded so as to elicit a statement other than yes or no. For the two sets of pictures, the students were asked to narrate the story. If the

students hesitated, they were urged on by questions such as "Qu'est-ce qui se passe dans cette image?" (What is happening in this picture?).

To assess the students' proficiency in oral production, three different measures of evaluation were used. First, each student's speech sample was evaluated globally by two raters, working independently, on five different dimensions: comprehension, pronunciation, grammar, vocabulary and communication. The ratings ranged from a maximum of 5, indicating native-like skill, to a minimum of 1, indicating very poor skill. The evaluations of both raters were combined to form an average score for each dimension. Second, a more objective evaluation of the students' oral production was provided by rating each sentence according to semantic and grammatical appropriateness. The following four alternatives were considered: (i) the sentence was semantically and grammatically correct; (ii) the sentence was semantically correct but contained grammatical errors; (iii) the response was semantically unacceptable within the context and (iv) there was no response or the response was predominantly in English.

(2) The English and Mathematics Test Battery

English language skills and achievement in mathematics were measured by using the Metropolitan Achievement Test (M.A.T.), elementary form JS (1978). The test is composed of three parts: (i) Reading (ii) Language and (iii) Mathematics.

(i) Reading The reading test consists of eleven passages followed by several questions (60 in all) with multiple-choice answers. The questions pertain to the literal meaning of the material read, the identification of main ideas and the recognition of word meanings from the context of the passage.

(ii) Language The language test measures the students' knowledge of spelling (17 items), grammar (37 items) and ability to use a dictionary (6 items). All the items have multiple-choice answers.

(iii) Mathematics The mathematics test consists of two parts. The first part assesses numeration and problem-solving ability (35 items). The second part assesses the students' proficiency in arithmetic computation (15 items). All the items have multiple-choice answers.

Procedure for Administering the Tests

All the tests, except the French oral production test, were group administered to intact grade 4 classes. The tests of students with French-speaking parents were, however, excluded from the evaluation. The oral production test was administered individually to a sub-sample of the population tested (approximately 50%). The French tests were administered by a native-French speaker and the other tests by a bilingual tester. The tests were administered in late spring.

Results

The students' scores on the Lorge Thorndike test were analyzed first using a one-way analysis of variance procedure. The results of the analysis revealed that there were no statistically significant differences between the groups ($F = 1.78$, $df = 2,173$). Mental capacity was, therefore, not considered an influencing factor in the results of the other tests. The data pertaining to the latter tests were analyzed using the same one-way analysis of variance procedure as above. Separate analyses were carried out for each test and subtest. In addition, wherever significant differences between the three groups were noted, a Newman-Keuls procedure of multiple comparison was used to determine which groups differed significantly from one another. The results of these analyses are summarized in Table 2 (French tests results) and Table 3 (English and mathematics test results).

(1) The French Test Battery

(i) Listening Comprehension Test

On the listening comprehension test, the RF group ($\bar{X} = 26.78$) scored significantly lower than the EC group ($\bar{X} = 34.69$) and the RFF group ($\bar{X} = 33.40$). There was no significant difference between the latter two groups.

(ii) Reading Comprehension Test

On the reading comprehension test, the EC group ($\bar{X} = 19.83$) scored significantly higher than the RFF group ($\bar{X} = 15.45$) and the RF group ($\bar{X} = 13.55$). There was no significant difference between the RF and RFF groups on this test.

(iii) Oral Production Test

The results of the global evaluation reveal that the EC group's ability to understand what was asked ($\bar{X} = 4.58$) was rated significantly higher than that of the RF group ($\bar{X} = 3.78$). The RFF group ($\bar{X} = 4.19$) ranked slightly lower than the EC group but the difference between these two groups was statistically not significant. In pronunciation, the RF group ($\bar{X} = 2.60$) was rated significantly lower than the RFF group ($\bar{X} = 3.44$). The EC group ranked mid-way between these two groups ($\bar{X} = 3.05$) and did not differ significantly from either group. On the other three measures (grammar, vocabulary and communication) the RF group was rated significantly lower than both the EC group and the RFF group and there were no significant differences between the latter two groups. The ratings for the RF group ranged from 2.01 to 2.33, whereas those of the EC group and RFF groups ranged from 3.00 to 3.27 (for details see Table 2).

The item analysis shows that the RF group ($\bar{X} = 8.17$) produced significantly fewer correct responses than the EC group ($\bar{X} = 15.55$) and the RFF group ($\bar{X} = 17.62$). There was no significant

difference between the latter two groups. The RF group also produced significantly more insufficient responses and semantically incorrect responses than the other two groups. On neither of these items did the performance of the EC group differ significantly from that of the RFF group (for the exact values, see Table 2). On the other hand, the EC group produced significantly more grammatically incorrect responses ($\bar{X} = 7.70$) than the RFF group ($\bar{X} = 4.25$) and here there was no significant difference between the RF group ($\bar{X} = 9.20$) and the EC group.

(2) The English and Mathematics Test Battery

The results on the English Metropolitan Achievement Tests (H.A.T.) reveal no significant differences among the three groups on the English reading comprehension and language tests (for details see Table 3). However, on the mathematics test, the EC group ($\bar{X} = 41.34$) scored significantly higher than the RF group ($\bar{X} = 38.25$) and the RFF group ($\bar{X} = 37.35$).

Comparison of the Three Subgroups in the EC Group

In order to assess whether the level of French proficiency differed in the three classes which made up the EC group, the test scores of these three classes (EC1, EC2 and EC3) were compared to one another using the same statistical procedure as in the previous comparisons. Tables 4 and 5 indicate the results of these analyses.

(1) The French Test Battery

(i) Listening Comprehension Test

On this test the EC3 group ($\bar{X} = 41.94$) scored significantly higher than the EC1 group ($\bar{X} = 31.81$) and the EC2 group ($\bar{X} = 34.05$). There was no significant difference between the latter two groups.

(ii) Reading Comprehension Test

Here the EC3 group ($\bar{X} = 23.90$) scored again significantly higher than the EC1 group ($\bar{X} = 17.72$). The EC2 group ($\bar{X} = 20.22$) ranked between the other two groups and did not differ significantly from either of them.

(iii) Oral Production Test

There were no significant differences among the three groups on any of the measures of evaluation pertaining to the global evaluation, although numerically, the EC3 group tended to score higher than the EC1 and EC2 groups (for details, see Table 4). The results of the item analysis reveal that the EC3 group ($\bar{X} = 6.00$) produced significantly fewer grammatically incorrect responses than the EC1 group ($\bar{X} = 9.15$) and the EC2 group ($\bar{X} = 7.15$) ranked between the two groups. On the other hand, the EC3 group ($\bar{X} = 1.86$) produced significantly more semantically incorrect responses than the EC1 group ($\bar{X} = 0.94$) and the EC2 group ($\bar{X} = 0.39$). The findings for the latter analysis must, however, be accepted cautiously because of the

very low values. There were no other significant differences among the groups on the item analysis.

(2) The English and Mathematics Test Battery

The results of the Metropolitan Achievement Test reveal no significant differences among the three groups on any of the tests in this battery. The scores obtained were as follows: in reading comprehension (EC1, $\bar{X}$ = 52.40; EC2, $\bar{X}$ = 52.14 and EC3, $\bar{X}$ = 49.91), in English language (EC1, $\bar{X}$ = 41.30; EC2, $\bar{X}$ = 43.65 and EC3, $\bar{X}$ = 44.58) and in mathematics (EC1, $\bar{X}$ = 41.12; EC2, $\bar{X}$ = 42.19 and EC3, $\bar{X}$ = 40.18).

Comparison of Students from Different Neighbourhoods

As noted above, approximately one-third of the students in the EC group had been transferred from a different school. These students came from a slightly lower socio-economic level neighbourhood than the other students in the EC group. In order to see how well these students (hereafter ECA group) had adjusted to their new school milieu, it was decided to compare their performance to that of the other students in the EC group (hereafter ECB group). The statistical procedure used for this analysis was a two-tailed t-test.

The results of the analyses show no significant differences between the ECA group and the ECB group on any of the tests both in the French test battery and in the English and mathematics test battery (for a summary of the results, see Tables 6 and 7).

Summary and Conclusions

The results of this study can be summarized as follows:

- (1) The EC group performed significantly better than the RF group on all the French language tests.
- (2) There were no significant differences between the EC group and the RFF group except in two cases: (a) the EC group scored significantly higher than the RFF group on the French reading comprehension test and (b) the RFF group produced significantly fewer grammatical errors than the EC group.
- (3) There were no significant differences among the three groups on the English language and reading comprehension tests.
- (4) The EC group scored significantly higher than the other two groups on the mathematics test.
- (5) The EC3 group scored significantly higher than the EC1 and EC2 groups on the French listening comprehension test. The EC3 group also scored significantly higher than the EC1 group on the French reading comprehension test. Moreover, the EC3 group produced significantly fewer grammatically incorrect responses than the EC1 group.
- (6) There were no significant differences among the EC1, EC2 and EC3 groups on the English and mathematics tests.
- (7) There were no significant differences between the ECA and ECB groups on any of the French, English and mathematics tests.

Several noteworthy conclusions emerge from this study. The finding that the EC students performed significantly better than the RF students on the French language tests seems to support the hypothesis that increased instructional time in the second language leads to higher levels of proficiency in that language (Carroll, 1975).

The importance of instructional time may, however, be diminished when other factors, such as the linguistic environment outside the school, intervene. In fact, one of the most interesting findings of this study pertains to the marked difference in French performance between the RFF students who were studying in a school situated in a predominantly French-speaking location and the RF students who were studying in schools situated in mainly English-speaking neighbourhoods. Since both groups were in a regular French second language program, the time factor is not relevant here. Moreover, all the significant differences between the two groups relate to the aural/oral skills (i.e. listening and speaking). It is probable that when the neighbourhood is mainly French, there are many occasions where the students must use French in interpersonal contacts outside the school. Similar results were noted when the French proficiency of immersion students in a French language school was compared to that of immersion students in English language schools (Genesee, Morin and Allister, 1974). At the same time, the performance of the RFF students may have been influenced by the use of teaching materials which differed from those generally used in the regular French second language

program. As noted above, the basic text used by the RFF students was Bonjour Canada which is, in fact, the text that was used by the EC students. Thus both the French environment and the teaching materials may have contributed to the fact that the RFF students' performance on the aural/oral tests was as good as that of the EC students.

On the other hand, neither the French environment nor the teaching materials seem to have influenced the development of the RFF students' reading skills. Here the effect of the extended core program is clearly evidenced in the EC students' superior performance. It would seem that both the time factor and the program's inclusion of a broad range of supplementary French reading materials have promoted a high level of proficiency in this area.

The finding that the EC group did not differ significantly from the other two groups in English language achievement is in keeping with the results noted for other types of intensive French programs (see, for instance, Barik and Swain, 1978; Edwards et al., 1981; Genesee, 1978). It is noteworthy that in mathematics, the EC students performed not only as well as, but significantly better than the RF and RFF students. This result does not seem directly attributable to the more intensive French instruction. However, motivational factors resulting from participation in the extended core program may play a role here. Genesee, Allister and Morin (1974) have suggested that when a new program is instituted in a school it gives the participating students a "special status" which may affect their academic per-

formance in general.

The results pertaining to the comparison between the three classes in the extended core program suggest that achievement in the second language is influenced to some extent by the number of students in a class. Not unexpectedly, the performance in French tended to be higher in the class which had only thirteen students. However, since there was only one such class, these findings must be accepted cautiously.

Finally, the study seems to indicate that the students who came from a school situated in a slightly lower income neighbourhood have integrated well into their new academic milieu since no significant differences were noted between these students and the other students in the extended core program.

Thus the extended core program seems to achieve its objective with regard to the development of French proficiency. Moreover, mother tongue skills and academic achievement are maintained and possibly even enhanced by comparison to achievement in schools with the regular French second language program.

It should, however, also be borne in mind that the students in this year's extended core program constituted the pilot group for this program. Continued testing over a number of years seems advisable. Furthermore, a longitudinal evaluation should be carried out to assess to what extent the comparatively higher achievement in the extended core program is maintained once French instruction becomes less intensive.

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Table 1A
Sample Sizes

(1) Major Groups:

Regular French Program (RF)	89
Extended Core Program (EC)	62
School in French Environment (RFF)	20

(2) Subgroups within the Extended Core Program

(i) According to class		(ii) According to school previously attended	
EC1	26	ECA	19
EC2	23	ECB	43
EC3	13		

Table 1B
Participating Schools

Herbert Purcell	Riverview	Hampstead
Dalkeith	Westmount Park	Stonecroft ^a

^aStonecroft is no longer in operation. The data was gathered from this school before it closed.

Table 2

Summary of French Test Results^a

	<u>RF</u>	<u>EC</u>	<u>RFF</u>	<u>F ratio</u>	<u>df</u>
Listening Comprehension (56) ^b	26.78	34.69	33.40	10.48***	2,164
Reading Comprehension (32)	13.55	19.83	15.45	18.07***	2,166
Oral Production					
Global Evaluation					
- comprehension (5)	3.78	4.58	4.19	5.37**	2,73
- pronunciation (5)	2.60	3.05	3.44	6.08**	2,73
- grammar (5)	2.25	3.00	3.22	12.86***	2,73
- vocabulary (5)	2.01	3.11	3.03	11.62***	2,73
- communication (5)	2.33	3.27	3.21	11.80***	2,73
Item Analysis (28)					
- Correct responses	8.17	15.55	17.62	24.77***	2,73
- Incorrect responses					
(i) grammatically	9.20	7.70	4.25	6.79**	2,73
(ii) semantically	3.54	0.76	1.62	11.69***	2,73
(iii) insufficient resp.	7.09	4.00	4.50	4.88*	2,73

- * p < .05
 ** p < .01
 *** p < .001

^aMean scores joined by a line differ significantly from one another.

^bMaximum scores in parentheses.

Table 3
Summary of English and Mathematics Test (M.A.T.) Results^a

	<u>RF</u>	<u>EC</u>	<u>RFF</u>	<u>F ratio</u>	<u>df</u>
Reading (60) ^b	48.78	51.77	48.06	2.81	2,157
Language (60)	43.72	42.87	43.33	0.28	2,161
Mathematics (50)	38.25	41.34	37.35	5.60**	2,160

** $p < .01$

^aMean scores joined by a solid line differ significantly from one another.

^bMaximum scores in parentheses.

Table 4
Comparison of French Test Results from the Three
Classes in the Extended Core Program^a

	EC1	EC2	EC3	F ratio	df
Listening Comprehension (56) ^b	31.81	34.05	41.54	3.63*	2,58
Reading Comprehension (32)	17.72	20.22	23.50	4.28*	2,57
Oral Production					
Global Evaluation					
- Comprehension (5)	4.70	4.35	4.79	0.82	2,30
- Pronunciation (5)	2.85	3.00	3.50	2.67	2,30
- Grammar (5)	2.88	2.92	3.36	1.61	2,30
- Vocabulary (5)	3.06	2.94	3.50	0.96	2,30
- Communication (5)	3.29	3.08	3.61	1.10	2,30
Item Analysis (28)					
- Correct responses	14.62	15.39	17.57	1.24	2,30
- Incorrect responses					
(i) grammatically	9.15	7.15	6.00	4.17**	2,30
(ii) semantically	0.54	0.39	1.86	4.65**	2,30
(iii) insufficient resp.	3.69	5.08	2.57	1.45	2,30

* $p < .05$

** $p < .01$

^aMean scores joined by a line differ significantly from one another.

^bMaximum scores in parentheses.

Table 5
Comparison of M.A.T. Results
from the Three Classes in the Extended Core Program

	<u>EC1</u>	<u>EC2</u>	<u>EC3</u>	<u>F ratio</u>	<u>df</u>
Reading (60) ^a	52.40	52.14	49.91	0.47	2,49
Language (60)	41.30	43.65	44.58	1.05	2,52
Mathematics (50)	41.12	42.19	40.18	0.60	2,53

^aMaximum scores in parentheses.

Table 6

Comparison of French Test Results from Two
Subgroups in the Extended Core Program

	<u>ECA</u>	<u>ECB</u>	<u>t</u>	<u>df</u>
Listening Comprehension (56) ^a	35.16	34.48	0.22	59
Reading Comprehension (32)	20.72	19.45	0.75	58
Oral Production				
Global Evaluation				
- comprehension (5)	4.70	4.50	0.64	31
- pronunciation (5)	3.04	3.05	0.01	31
- grammar (5)	3.04	2.98	0.28	31
- vocabulary (5)	3.02	3.16	0.46	31
- communication (5)	3.23	3.30	0.24	31
Item Analysis (28)				
- Correct responses	15.23	15.75	0.36	31
- Incorrect responses				
(i) grammatically	8.23	7.35	0.91	31
(ii) semantically	0.69	0.80	0.24	31
(iii) insufficient resp.	3.85	4.10	0.22	31

^aMaximum scores in parentheses.

Table 7
Comparison of M.A.T. Results from Two
Subgroups in the Extended Core Program

	<u>ECA</u>	<u>ECB</u>	<u>t</u>	<u>df</u>
Reading (60) ^a	52.69	51.46	0.53	50
Language (60)	44.75	42.10	1.27	54
Mathematics (50)	42.18	40.97	0.81	54

^aMaximum scores in parentheses.